

### **Abstract**

The present invention provides a novel *in vitro* prediction system of a phospholipidosis inducing potential of a novel drug-caused phospholipidosis marker gene and a drug.

5 Specifically, the invention provides a reagent for prediction of a phospholipidosis inducing potential of a compound containing a nucleic acid capable of detecting the expression of a gene having the same or substantially the same base sequence as the base sequence shown in SEQ ID NO:1, 3, 5, 7, 9,

10 11, 13, 15, 17, 19, 21 or 23. Furthermore, the invention provides a method for predicting a phospholipidosis inducing potential of a compound, which includes detecting the expression of two or more genes showing expression variation in correlation with phospholipidosis expression in a mammalian

15 cell exposed to a test compound.